

interface circuit 302; a decrypting circuit 303; a selecting circuit 304; a decoding circuit 305; a monitor 306; and a control circuit 307. The digital broadcast signal inputted from the digital input terminal 301 is supplied to the interface circuit 302, by which the packet for the digital broadcast signal is extracted from the packet for the digital interface. Subsequently, if the digital broadcast signal has been encrypted, a decrypting process of the packet for the digital broadcast signal is executed by the decrypting circuit 303. Next, the selecting circuit 304 selects the packet for the digital broadcast signal in which the video data and audio data which are displayed have been stored. The selected packet for the digital broadcast signal is inputted to the decoding circuit 305, converted into an analog video signal and an analog audio signal, and displayed by the monitor 306. The above processes which are executed by the digital signal input apparatus 300 are controlled by the control circuit 307. The digital signal input apparatus 300 is not limited to the apparatus for displaying the inputted digital broadcast signal onto the screen, but can be also replaced with, for example, an apparatus for recording the signal onto the recording medium.

As described above, the digital signal recording and reproducing apparatus 100 has a function for receiving the digital broadcast signal outputted by

the digital signal output apparatus 200 and recording it onto the recording medium. The apparatus 100 also has a function for outputting the digital broadcast signal reproduced from the recording medium to the  
5 digital signal input apparatus 300.

Subsequently, a construction of the packet for the digital broadcast signal will be described. Fig. 4 is a constructional diagram of the packet for the digital broadcast signal. A length of one packet  
10 for the digital broadcast signal is fixed to, for example, 188 bytes, and this packet is constructed by: a packet header 400 of 4 bytes; and packet information 401 of 184 bytes. The packet header 400 comprises: sync bytes 402 indicative of the head of the packet; an  
15 error indicator 403 showing the presence or absence of an error of the packet; a unit start indicator showing the start of a unit; a transport priority 405 showing a significance degree of the packet; a packet ID 406 showing the kind of packet; a scrambling control 407  
20 showing the presence or absence of the scramble; adaptation field control 408 showing the presence or absence of additional information and the presence or absence of the packet information; and a cyclic counter 409 which is counted up on a packet unit basis.

25 The video data, audio data, and the like are stored in the packet information 401. Which kind of data is included in the packet information 401 is identified by the packet ID 406. Data including the

copy control information of the digital broadcast signal is also stored into the packet information 401. As copy control information, for example, information of two bits is used, thereby indicating three states of

5 "copy freely", "copy one generation", and "copy never". If there is no copy control information, it is also possible to indicate "copy freely" or "copy never". Further, copy freely signal protection information as information to perform a control about whether the

10 digital broadcast signal is protected against the illegal use or not is also stored into the packet information 401. As copy freely signal protection information, for example, information of one bit is used, thereby showing two states of "protection" and

15 "non-protection". If the copy freely signal protection information indicates "protection", for example, it is regarded that the digital broadcast signal is set to "copy freely" irrespective of a value of the copy control information. However, by using an encrypting

20 process or the like, the digital broadcast signal is protected. If the copy freely signal protection information does not exist, either "protection" or "non-protection" can be also indicated.

A construction of the packet for the digital

25 interface will now be described. Fig. 5 is a constructional diagram of the packet for the digital interface. A length of one packet for the digital interface is set to a variable length. For example,